

September 21, 2012

Ms. Jaclynne Drummond
Compliance Hydrogeologist
NC Department of Environment and Natural Resources
Division of Waste Management – Solid Waste Section
1646 Mail Service Center
Raleigh, North Carolina 27699-1646



**RE: Completion of Landfill Gas Monitoring Probe Installations
Town of Kernersville Landfill, Permit No. 34-04
Forsyth County, North Carolina
JOYCE Project No. 838.1201.11, Task No. 02**

Dear Ms. Drummond:

On behalf of the Town of Kernersville, Joyce Engineering, is submitting the enclosed boring logs for Landfill Gas (LFG) monitoring probes GW-1, GW-2, GW-3, GW-4 and GW-5 installed on August 28, 2012 as requested by the Solid Waste Section. These probes were installed in accordance with the LFG Monitoring Plan. In addition, a LFG Monitoring Network site map has been included to identify the locations of the recently installed probes.

Please feel free to contact me or Larry Hine at (336) 323-0092 if you have any questions regarding this submittal.

Respectfully,
JOYCE ENGINEERING

Alex Everhart
Staff Consultant

Attachments: Boring Logs for GW-1, GW-2, GW-3, GW-4 and GW-5
Drillers Well Construction Logs for GW-1, GW-2, GW-3, GW-4 and GW-5
LFG Monitoring Network Site Map

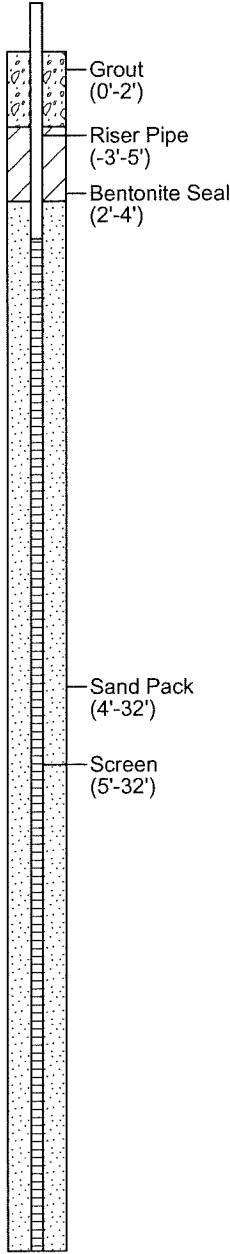
Copy: Christine Ritter, DENR
Thad Buck – Town of Kernersville



LOG OF BORING GW-1

(Page 1 of 1)

Kernersville closed LF Kernersville NC JOYCE Project No.838.1201.11 Task 02	Date Started	: 8/28/2012	Drilling Company	: Geologic Exploration, Inc.
	Date Completed	: 8/28/2012	Northing Coord.	: 36, 11' 35.61"
	Hole Diameter	: 4 inch	Westing Coord.	: 80, 02' 16.22"
	Drilling Method	: Hollow Stem Augers	Survey By	:
	Sampling Method	:	Logged By	: R. Winfield

Depth in Feet	Surf. Elev.	Blow Count	% Rec.	USCS	DESCRIPTION	Well: GW-1 TOC Elev.:	Well Construction Information
0					light brown-orange clayey sand	 <p>Grout (0'-2')</p> <p>Riser Pipe (-3'-5')</p> <p>Bentonite Seal (2'-4')</p> <p>Sand Pack (4'-32')</p> <p>Screen (5'-32')</p>	<p>WELL CONSTRUCTION</p> <p>Date Compl. : 8/28/2012</p> <p>Hole Diameter(s) : 4-inch</p> <p>Drilling Method(s) : HS Auger</p> <p>Company Rep. :</p> <p>Drilling Method(s) :</p> <p>Company Rep. :</p> <p>WELL CASING</p> <p>Material : Schedule 40 PVC</p> <p>Diameter : 1-inch</p> <p>Joints : Threaded, flush</p> <p>Approx. Csg. Stickup : 3-feet</p> <p>WELL SCREEN</p> <p>Material : Schedule 40 PVC</p> <p>Diameter : 1-inch</p> <p>Joints : Threaded, flush</p> <p>Opening : 0.010 inch</p> <p>GRAVEL PACK</p> <p>Type : # 2 Sand</p> <p>WELL SCREEN SEAL</p> <p>Type : Bentonite</p> <p>ANNULUS SEAL</p> <p>Type : Grout</p> <p>PROTECTIVE CSG.</p> <p>Type : 4 inch OD, steel</p> <p>WELL PAD</p> <p>Type : 2 x 2 feet, 6 inch thick</p>
5							
10					reddish brown clayey sand		
15					light brown-orange clayey sand		
20					brownigh grey clayey sand		
25							
30					damp		
35					TD		



LOG OF BORING GW-2

(Page 1 of 1)

Kernersville closed LF Kernersville NC JOYCE Project No.838.1201.11 Task 02	Date Started	: 8/28/2012	Drilling Company	: Geologic Exploration, Inc.
	Date Completed	: 8/28/2012	Northing Coord.	: 36, 11' 36.22"
	Hole Diameter	: 4 inch	Westing Coord.	: 80, 02' 19.36"
	Drilling Method	: Hollow Stem Augers	Survey By	:
	Sampling Method	:	Logged By	: R. Winfield

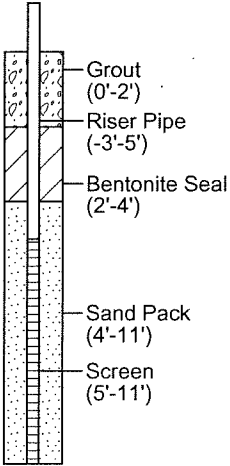
Depth in Feet	Surf. Elev.	Blow Count	% Rec.	USCS	DESCRIPTION	Well: GW-2 TOC Elev.:	Well Construction Information
0					light brown-orange clayey sand	<p>Grout (0'-2') Riser Pipe (-3'-5') Bentonite Seal (2'-4') Sand Pack (4'-20') Screen (5'-20')</p>	<p>WELL CONSTRUCTION</p> <p>Date Compl. : 8/28/2012 Hole Diameter(s) : 4-inch Drilling Method(s) : HS Auger Company Rep. : Drilling Method(s) : Company Rep. :</p> <p>WELL CASING</p> <p>Material : Schedule 40 PVC Diameter : 1-inch Joints : Threaded, flush Approx. Csg. Stickup : 3-feet</p> <p>WELL SCREEN</p> <p>Material : Schedule 40 PVC Diameter : 1-inch Joints : Threaded, flush Opening : 0.010 inch</p> <p>GRAVEL PACK</p> <p>Type : # 2 Sand</p> <p>WELL SCREEN SEAL</p> <p>Type : Bentonite</p> <p>ANNULUS SEAL</p> <p>Type : Grout</p> <p>PROTECTIVE CSG.</p> <p>Type : 4 inch OD, steel</p> <p>WELL PAD</p> <p>Type : 2 x 2 feet, 6 inch thick</p>
5					grey black clayey sand		
10					light brown grey clayey sand		
15							
20					tan clayey sand w/ rock fragments		
25							
30							
35							
					PWR (TD)		



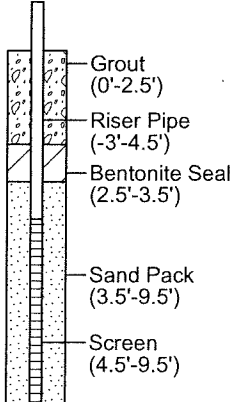
LOG OF BORING GW-3

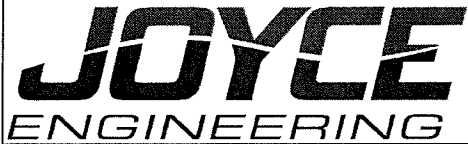
(Page 1 of 1)

Kernersville closed LF Kernersville NC JOYCE Project No.838.1201.11 Task 02	Date Started	: 8/28/2012	Drilling Company	: Geologic Exploration, Inc.
	Date Completed	: 8/28/2012	Northing Coord.	: 36, 11' 36.46"
	Hole Diameter	: 4 inch	Westing Coord.	: 80, 02' 25.48'
	Drilling Method	: Hollow Stem Augers	Survey By	:
	Sampling Method	:	Logged By	: R. Winfield

Depth in Feet	Surf. Elev.	Blow Count	% Rec.	USCS	DESCRIPTION	Well: GW-3 TOC Elev.:	Well Construction Information
0					Brown clayey sand		<p>WELL CONSTRUCTION</p> <p>Date Compl. : 8/28/2012 Hole Diameter(s) : 4-inch Drilling Method(s) : HS Auger Company Rep. : Drilling Method(s) : Company Rep. :</p> <p>WELL CASING</p> <p>Material : Schedule 40 PVC Diameter : 1-inch Joints : Threaded, flush Approx. Csg. Stickup : 3-feet</p> <p>WELL SCREEN</p> <p>Material : Schedule 40 PVC Diameter : 1-inch Joints : Threaded, flush Opening : 0.010 inch</p> <p>GRAVEL PACK</p> <p>Type : # 2 Sand</p> <p>WELL SCREEN SEAL</p> <p>Type : Bentonite</p> <p>ANNULUS SEAL</p> <p>Type : Grout</p> <p>PROTECTIVE CSG.</p> <p>Type : 4 inch OD, steel</p> <p>WELL PAD</p> <p>Type : 2 x 2 feet, 6 inch thick</p>
5							
10					dark brown clayey sand damp w/ rock fragments		
15					brown/grey clay, rock fragments, wet TD		
20							
25							
30							
35							

09-17-2012 P:\Kernersville\Town of Kernersville Landfill Air Probe-Vent Installation\Logs\GW-4.bor

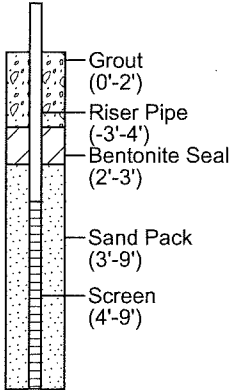
<div>JOYCEENGINEERING</div>					<div>LOG OF BORING GW-4</div> <div>(Page 1 of 1)</div>			
Kernersville closed LF Kernersville NC					Date Started : 8/28/2012 Date Completed : 8/28/2012 Hole Diameter : 4 inch Drilling Method : Hollow Stem Augers Sampling Method :		Drilling Company : Geologic Exploration, Inc. Northing Coord. : 36, 11' 30.45" Westing Coord. : 80, 02' 12.98" Survey By : Logged By : R. Winfield	
JOYCE Project No.838.1201.11 Task 02								
Depth in Feet	Surf. Elev.	Blow Count	% Rec.	USCS	DESCRIPTION	Well: GW-4 TOC Elev.:	Well Construction Information	
0					brownish orange clayey sand		WELL CONSTRUCTION Date Compl. : 8/28/2012 Hole Diameter(s) : 4-inch Drilling Method(s) : HS Auger Company Rep. : Drilling Method(s) : Company Rep. : WELL CASING Material : Schedule 40 PVC Diameter : 1-inch Joints : Threaded, flush Approx. Csg. Stickup : 3-feet WELL SCREEN Material : Schedule 40 PVC Diameter : 1-inch Joints : Threaded, flush Opening : 0.010 inch GRAVEL PACK Type : # 2 Sand WELL SCREEN SEAL Type : Bentonite ANNULUS SEAL Type : Grout PROTECTIVE CSG. Type : 4 inch OD, steel WELL-PAD Type : 2 x 2 feet, 6 inch thick	
5					fine brown orange clayey sand			
					damp			
					wet			
10					clumpy lighter color TD			
15								
20								
25								
30								
35								



LOG OF BORING GW-5

(Page 1 of 1)

Kernersville closed LF Kernersville NC JOYCE Project No.838.1201.11 Task 02	Date Started	: 8/28/2012	Drilling Company	: Geologic Exploration, Inc.
	Date Completed	: 8/28/2012	Northing Coord.	: 36, 11' 33.55"
	Hole Diameter	: 4 inch	Westing Coord.	: 80, 02' 25.92"
	Drilling Method	: Hollow Stem Augers	Survey By	:
	Sampling Method	:	Logged By	: R. Winfield

Depth in Feet	Surf. Elev.	Blow Count	% Rec.	USCS	DESCRIPTION	Well: GW-5 TOC Elev.:	Well Construction Information
0					Brown to light brown sandy silt		<p>WELL CONSTRUCTION</p> <p>Date Compl. : 8/28/2012 Hole Diameter(s) : 4-inch Drilling Method(s) : HS Auger Company Rep. : Drilling Method(s) : Company Rep. :</p> <p>WELL CASING</p> <p>Material : Schedule 40 PVC Diameter : 1-inch Joints : Threaded, flush Approx. Csg. Stickup : 3-feet</p> <p>WELL SCREEN</p> <p>Material : Schedule 40 PVC Diameter : 1-inch Joints : Threaded, flush Opening : 0.010 inch</p> <p>GRAVEL PACK</p> <p>Type : # 2 Sand</p> <p>WELL SCREEN SEAL</p> <p>Type : Bentonite</p> <p>ANNULUS SEAL</p> <p>Type : Grout</p> <p>PROTECTIVE CSG.</p> <p>Type : 4 inch OD, steel</p> <p>WELL PAD</p> <p>Type : 2 x 2 feet, 6 inch thick</p>
					Grey blackish brown sandy silt		
5					brown clayey sand		
					damp		
10					TD		
15							
20							
25							
30							
35							



Non RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2579

1. WELL CONTRACTOR:

DANNY SUMMERS

Well Contractor (Individual) Name
GEOLOGIC EXPLORATION, INC
Well Contractor Company Name
176 COMMERCE BLVD
Street Address
STATESVILLE NC 28625
City or Town State Zip Code

(704) 872-7686
Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT#

OTHER ASSOCIATED PERMIT#(if applicable)

SITE WELL ID #(if applicable) GW-1

3. WELL USE (Check One Box) Monitoring ☐ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation ☐ Other ☒ (list use) GAS PROBE

DATE DRILLED 08/28/12

4. WELL LOCATION:

9900 FREEMAN ROAD 27284
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: KERNERSVILLE COUNTY FORSYTH

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other

LATITUDE 36 ° 11 ' 35.6100 " DMS OR DD

LONGITUDE 80 ° 2 ' 16.2200 " DMS OR DD

Latitude/longitude source: ☒ GPS ☐ Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

KERNERSVILLE LANDFILL N/A
Facility Name Facility ID# (if applicable)

9900 FREEMAN ROAD
Street Address
KERNERSVILLE NC 27284
City or Town State Zip Code

TOWN OF KERNERSVILLE
Contact Name

PO BOX 728
Mailing Address
KERNERSVILLE NC 27285
City or Town State Zip Code

()
Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 32.0 FEET

b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

c. WATER LEVEL Below Top of Casing: 30.0 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

Top Bottom Top Bottom

Top Bottom Top Bottom

Top Bottom Top Bottom

7. CASING: Depth	Diameter	Thickness/Weight	Material
Top 0.0 Bottom 5.0 Ft. 1 INCH		SCH 40	PVC
Top Bottom Ft.			
Top Bottom Ft.			

Top Bottom Ft.

Top Bottom Ft.

8. GROUT: Depth	Material	Method
Top 0.0 Bottom 2.0 Ft. PORTLAND BENTONITE		SLURRY
Top Bottom Ft.		
Top Bottom Ft.		

Top Bottom Ft.

Top Bottom Ft.

9. SCREEN: Depth	Diameter	Slot Size	Material
Top 5.0 Bottom 32.0 Ft. 1.0 in. .010 in. PVC			
Top Bottom Ft. in. in.			
Top Bottom Ft. in. in.			

Top Bottom Ft. in. in.

Top Bottom Ft. in. in.

10. SAND/GRAVEL PACK: Depth	Size	Material
Top 4.0 Bottom 32.0 Ft. 20-40		FINE SILICA SAND
Top Bottom Ft.		
Top Bottom Ft.		

Top Bottom Ft.

Top Bottom Ft.

11. DRILLING LOG	Formation Description
Top Bottom	
0.0 / 20.0	BROWN CLAYEY SILT
20.0 / 32.0	TAN SILT
/	
/	
/	
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/	
/	
/	
/	
/	
/	

0.0 / 20.0 BROWN CLAYEY SILT

20.0 / 32.0 TAN SILT

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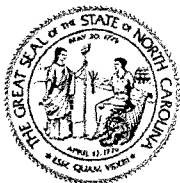
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12. REMARKS:
BENTONITE SEAL FROM 2.0 TO 4.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Danny Summers
SIGNATURE OF CERTIFIED WELL CONTRACTOR 09/05/12
DATE

DANNY SUMMERS
PRINTED NAME OF PERSON CONSTRUCTING THE WELL



Non RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2579

1. WELL CONTRACTOR:

DANNY SUMMERS

Well Contractor (Individual) Name

GEOLOGIC EXPLORATION, INC

Well Contractor Company Name

176 COMMERCE BLVD

Street Address

STATESVILLE

NC

28625

City or Town

State

Zip Code

(704) 872-7686

Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT#

OTHER ASSOCIATED PERMIT#(if applicable)

SITE WELL ID #(if applicable) GW-2

3. WELL USE (Check One Box) Monitoring ☐ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation ☐ Other ☒ (list use) GAS PROBE

DATE DRILLED 08/28/12

4. WELL LOCATION:

9900 FREEMAN ROAD 27284

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: KERNERSVILLE

COUNTY: FORSYTH

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other

LATITUDE 36 ° 11 ' 36.2200 " DMS OR DD

LONGITUDE 80 ° 2 ' 19.3600 " DMS OR DD

Latitude/longitude source: ☒ GPS ☐ Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

KERNERSVILLE LANDFILL

N/A

Facility Name

Facility ID# (if applicable)

9900 FREEMAN ROAD

Street Address

KERNERSVILLE

NC

27284

City or Town

State

Zip Code

TOWN OF KERNERSVILLE

Contact Name

PO BOX 728

Mailing Address

KERNERSVILLE

NC

27285

City or Town

State

Zip Code

()

Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 20.0 FEET

b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

c. WATER LEVEL Below Top of Casing: 18.0 FT.

(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

Top Bottom Top Bottom

Top Bottom Top Bottom

Top Bottom Top Bottom

7. CASING: Depth Diameter Thickness/Weight Material

Top 0.0 Bottom 5.0 Ft. 1 INCH SCH 40 PVC

Top Bottom Ft. in. in.

Top Bottom Ft. in. in.

8. GROUT: Depth Material Method

Top 0.0 Bottom 2.0 Ft. PORTLAND BENTONITE SLURRY

Top Bottom Ft. in. in.

Top Bottom Ft. in. in.

9. SCREEN: Depth Diameter Slot Size Material

Top 5.0 Bottom 20.0 Ft. 1.0 in. .010 in. PVC

Top Bottom Ft. in. in.

Top Bottom Ft. in. in.

10. SAND/GRAVEL PACK:

Depth Size Material

Top 4.0 Bottom 20.0 Ft. 20-40 FINE SILICA SAND

Top Bottom Ft. in. in.

Top Bottom Ft. in. in.

11. DRILLING LOG

Top Bottom Formation Description

0.0 / 20.0 BROWN CLAYEY SILT

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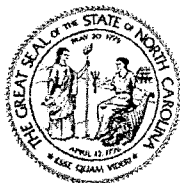
12. REMARKS:

BENTONITE SEAL FROM 2.0 TO 4.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Danny Summers 09/05/12
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

DANNY SUMMERS
PRINTED NAME OF PERSON CONSTRUCTING THE WELL



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Well Contractor Company Name

176 COMMERCE BLVD

Street Address

STATESVILLE

NC

28625

City or Town

State

Zip Code

(704) 872-7686

Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT#

OTHER ASSOCIATED PERMIT#(if applicable)

SITE WELL ID # (if applicable) GW-3

3. WELL USE (Check One Box) Monitoring ☐ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation ☐ Other ☒ (list use) GAS PROBE

DATE DRILLED 08/28/12

4. WELL LOCATION:

9900 FREEMAN ROAD 27284

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: KERNERSVILLE

COUNTY: FORSYTH

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other

LATITUDE 36 ° 11 ' 36.4600 " DMS OR DD

LONGITUDE 80 ° 2 ' 25.4800 " DMS OR DD

Latitude/longitude source: ☒ GPS ☐ Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

KERNERSVILLE LANDFILL

N/A

Facility Name

Facility ID# (if applicable)

9900 FREEMAN ROAD

Street Address

KERNERSVILLE

NC

27284

City or Town

State

Zip Code

TOWN OF KERNERSVILLE

Contact Name

PO BOX 728

Mailing Address

KERNERSVILLE

NC

27285

City or Town

State

Zip Code

()

Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 11.0 FEET

b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

c. WATER LEVEL Below Top of Casing: 8.0 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

Top Bottom Top Bottom

Top Bottom Top Bottom

Top Bottom Top Bottom

7. CASING:	Depth	Diameter	Thickness/ Weight	Material
Top	0.0	Bottom 5.0	Ft. 1 INCH	SCH 40 PVC
Top	Bottom	Ft.		
Top	Bottom	Ft.		

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR 09/05/12
DATE

DANNY SUMMERS
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing,
1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300

Form GW-1b
Rev. 2/09



Non RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2579

1. WELL CONTRACTOR:

DANNY SUMMERS

Well Contractor (Individual) Name

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City or Town

State

Zip Code

(704) 872-7686

Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT#

OTHER ASSOCIATED PERMIT#(if applicable)

SITE WELL ID # (if applicable) GW-4

3. WELL USE (Check One Box) Monitoring ☐ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation ☐ Other ☒ (list use) GAS PROBE

DATE DRILLED 08/28/12

4. WELL LOCATION:

9900 FREEMAN ROAD 27284

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: KERNERSVILLE

COUNTY FORSYTH

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other

LATITUDE 36 ° 11 ' 30.4500 " DMS OR DD

LONGITUDE 80 ° 2 ' 12.9800 " DMS OR DD

Latitude/longitude source: ☒ GPS ☐ Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

KERNERSVILLE LANDFILL

N/A

Facility Name

Facility ID# (if applicable)

9900 FREEMAN ROAD

Street Address

KERNERSVILLE

NC

27284

City or Town

State

Zip Code

TOWN OF KERNERSVILLE

Contact Name

PO BOX 728

Mailing Address

KERNERSVILLE

NC

27285

City or Town

State

Zip Code

()

Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 9.5 FEET

b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

c. WATER LEVEL Below Top of Casing: 7.0 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

Top Bottom Top Bottom

Top Bottom Top Bottom

Top Bottom Top Bottom

7. CASING: Depth	Diameter	Thickness/Weight	Material
Top 0.0 Bottom 4.5 Ft. 1 INCH		SCH 40	PVC
Top Bottom Ft.			
Top Bottom Ft.			

8. GROUT: Depth	Material	Method
Top 0.0 Bottom 2.5 Ft. PORTLAND BENTONITE		SLURRY
Top Bottom Ft.		
Top Bottom Ft.		

9. SCREEN: Depth	Diameter	Slot Size	Material
Top 4.5 Bottom 9.5 Ft. 1.0 in. .010 in.			PVC
Top Bottom Ft. in.			
Top Bottom Ft. in.			

10. SAND/GRAVEL PACK: Depth	Size	Material
Top 3.5 Bottom 9.5 Ft. 20-40		FINE SILICA SAND
Top Bottom Ft.		
Top Bottom Ft.		

11. DRILLING LOG	Formation Description
Top Bottom	
0.0 / 9.5	BROWN CLAYEY SILT
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/	
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/	
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/	

12. REMARKS:

BENTONITE SEAL FROM 2.5 TO 3.5 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Danny Summers 09/05/12
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

DANNY SUMMERS
PRINTED NAME OF PERSON CONSTRUCTING THE WELL



Non RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2579

1. WELL CONTRACTOR:

DANNY SUMMERS

Well Contractor (Individual) Name

GEOLOGIC EXPLORATION, INC

Well Contractor Company Name

176 COMMERCE BLVD

Street Address

STATESVILLE

NC

28625

City or Town

State

Zip Code

(704) 872-7686

Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT#

OTHER ASSOCIATED PERMIT#(if applicable)

SITE WELL ID # (if applicable) GW-5

3. WELL USE (Check One Box) Monitoring ☐ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation ☐ Other ☒ (list use) GAS PROBE

DATE DRILLED 08/28/12

4. WELL LOCATION:

9900 FREEMAN ROAD 27284

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: KERNERSVILLE

COUNTY FORSYTH

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other

LATITUDE 36 ° 11 ' 33.5500 " DMS OR DD

LONGITUDE 80 ° 2 ' 25.9200 " DMS OR DD

Latitude/longitude source: ☒ GPS ☐ Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

KERNERSVILLE LANDFILL

N/A

Facility Name

Facility ID# (if applicable)

9900 FREEMAN ROAD

Street Address

KERNERSVILLE

NC

27284

City or Town

State

Zip Code

TOWN OF KERNERSVILLE

Contact Name

PO BOX 728

Mailing Address

KERNERSVILLE

NC

27285

City or Town

State

Zip Code

()

Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 9.0 FEET

b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

c. WATER LEVEL Below Top of Casing: 7.0 FT.

(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

Top Bottom Top Bottom

Top Bottom Top Bottom

Top Bottom Top Bottom

7. CASING: Depth Diameter Thickness/Weight Material

Top 0.0 Bottom 4.0 Ft. 1 INCH SCH 40 PVC

Top Bottom Ft. in. in.

Top Bottom Ft. in. in.

8. GROUT: Depth Material Method

Top 0.0 Bottom 2.0 Ft. PORTLAND BENTONITE SLURRY

Top Bottom Ft. in. in.

Top Bottom Ft. in. in.

9. SCREEN: Depth Diameter Slot Size Material

Top 4.0 Bottom 9.0 Ft. 1.0 in. .010 in. PVC

Top Bottom Ft. in. in.

Top Bottom Ft. in. in.

10. SAND/GRAVEL PACK:

Depth Size Material

Top 3.0 Bottom 9.0 Ft. 20-40 FINE SILICA SAND

Top Bottom Ft. in. in.

Top Bottom Ft. in. in.

11. DRILLING LOG

Top Bottom Formation Description

0.0 / 9.0 BROWN CLAYEY SILT

/

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/

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12. REMARKS:

BENTONITE SEAL FROM 2.0 TO 3.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Danny Summers

SIGNATURE OF CERTIFIED WELL CONTRACTOR 09/05/12

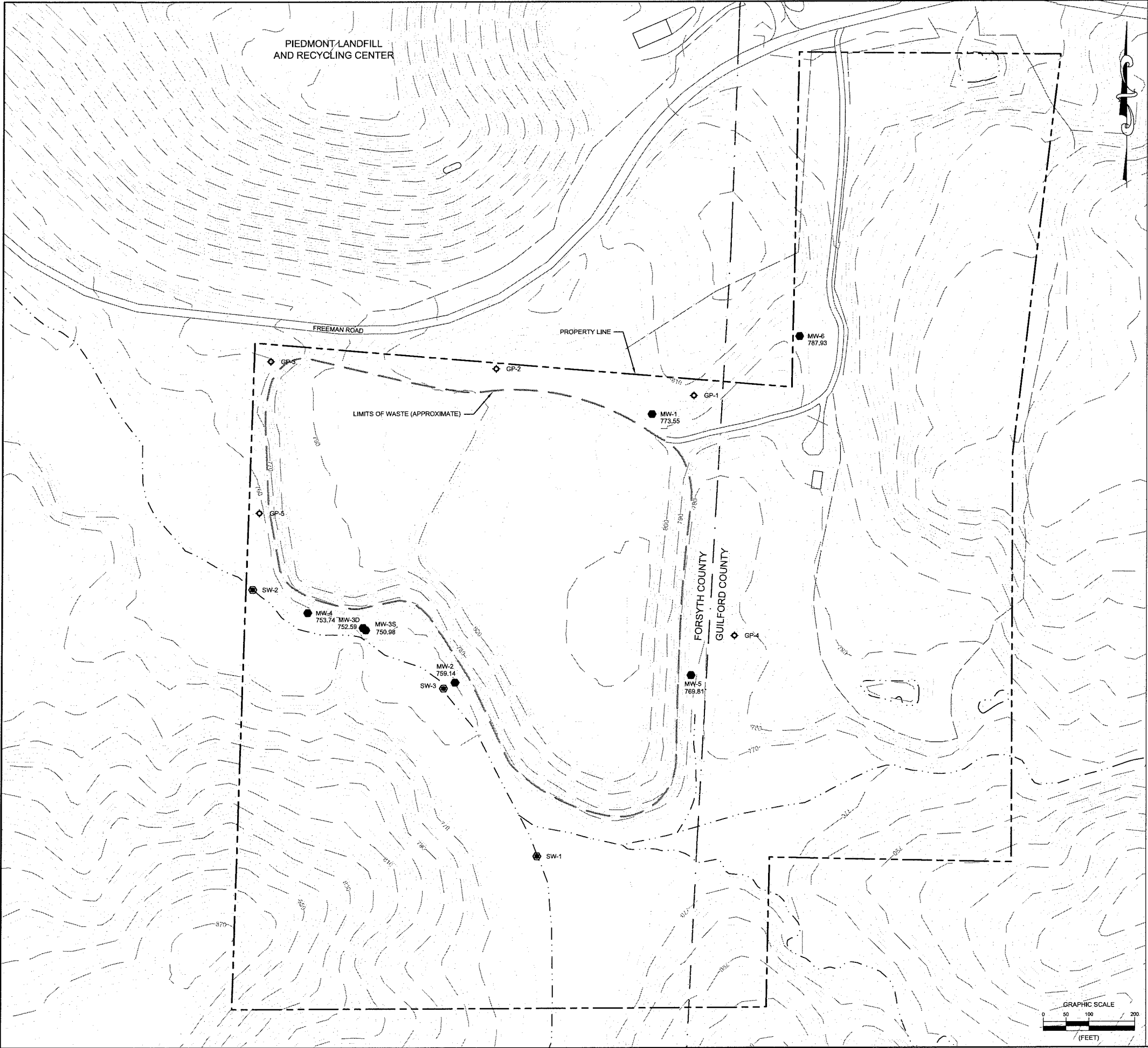
DATE

DANNY SUMMERS

PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing,
1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300

Form GW-1b
Rev. 2/09



- LEGEND**
- 1130 EXISTING 10' TOPOGRAPHIC CONTOUR
 - EXISTING 2' TOPOGRAPHIC CONTOUR
 - PROPERTY LINE
 - EXISTING ROAD
 - APPROXIMATE LIMITS OF WASTE
 - CENTERLINE OF STREAM
 - SW-1 APPROXIMATE SURFACE WATER SAMPLING POINT LOCATION AND IDENTIFICATION
 - MW-1 MONITORING WELL IDENTIFICATION AND WATER LEVEL READING
 - 773.55
 - GW-6 PROPOSED LANDFILL GAS WELL

- NOTES:**
1. SURVEY DATA FOR GUILFORD COUNTY DATED SEPTEMBER 2009, AND MARCH 2010.
 2. SURVEY DATA FOR FORSYTH COUNTY DATED OCTOBER, 2010.
 3. ALL SURVEY DATA OBTAINED FROM COUNTY GIS FILES.
 4. LIMITS OF WASTE ARE APPROXIMATE.

DESIGNED: RWH/JJK
DRAWN: CADD/RWH
CHECKED: JJK
APPROVED: GVB
DATE: 02/01/11
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JOYCE
ENGINEERING
2211 W. MEADOWVIEW ROAD
GREENSBORO, NC 27407
PHONE: (336) 323-0092
NC CORP. LIC. C-0782

TOWN OF KERNERSVILLE LANDFILL
FORSYTH COUNTY, NORTH CAROLINA

PROPOSED LANDFILL GAS WELL LOCATIONS

PROJECT NO.
838.1201.12

SCALE
AS SHOWN

DRAWING NO.
2